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THE CALIFORNIA JOURNAL

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Contents.

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June 1, 1904. LLOYD BROTHERS, Cincinnati, Ohio.

Yellow Fever and Dengue.—The differentiation of these two diseases in the early stage is said to be difficult, though of the utmost importance, since one is commonly fatal and the other is not. In the second and third stages of yellow fever the marked jaundice, severe, often black, vomiting, albuminuria and ischuria or anuria make its diagnosis assured. Dengue spreads in very rapid epidemics along the southern and southeastern coasts. During invasion there are intense, boring or breaking pains in the muscles, bones and joints, whereas in yellow fever there are severe headache, nephralgia, and pain in the calves.

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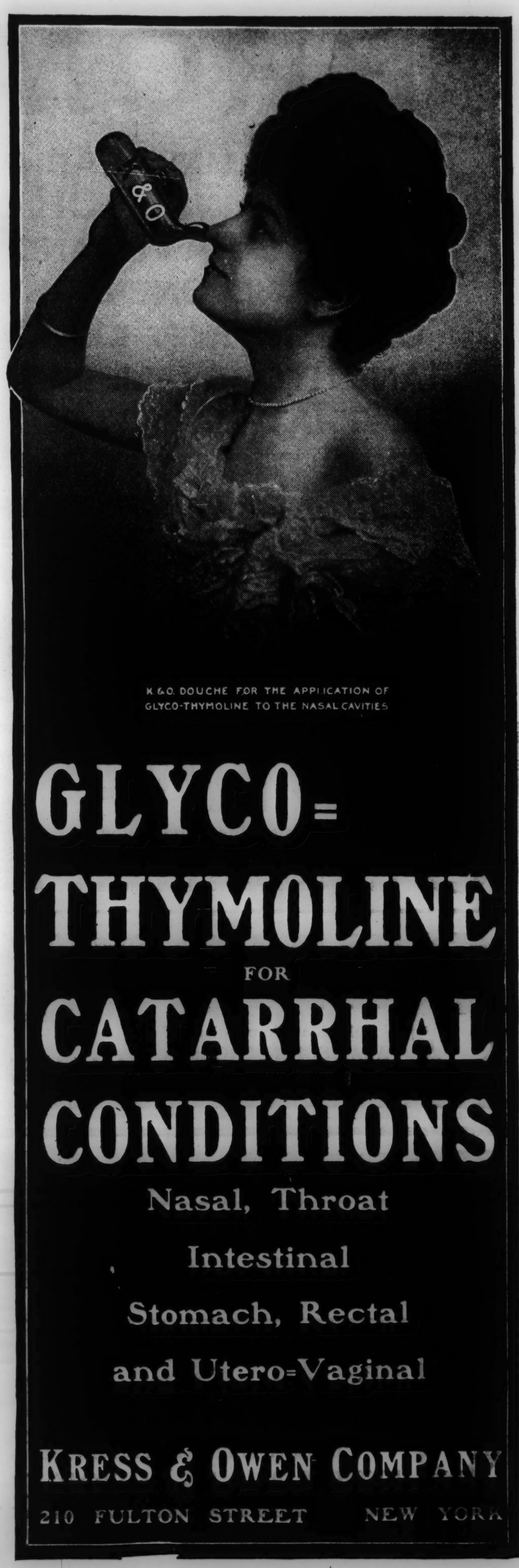

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SAMPLES AND LITERATURE UPON APPLICATION

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CALIFORNIA MEDICAL JOURNAL.

VOL. XXV. OCTOBER, 1904. No. 10.

Hygienic Essentials.

M. SCHIRMAN, M. D.

Lecturer on Hygiene, California Medical College.

PART II.—VENTILATION (CONTINUED).

AMOUNT of cubic space necessary.—A large supply of air is required to preserve the air of an inhabited room in a wholesome state of freshness. The amount has been fixed (as stated before) at 3000 cubic feet per hour for each adult healthy man. In order to secure the required change of air without perceptible, or at least uncomfortable currents of draughts, a certain amount of cubic air space is necessary.

The sizes of the room, or the cubic air-space, will depend on the means by which the necessary amount of air is supplied. If the room is small the air must be changed more frequently than when it is large, and the rate at which the air passes through the space will necessarily be more rapid, and the chances of uncomfortable draughts more imminent.

It has been determined that each person should have, as a minimum allowance, from 750 to 1000 cubit feet of initial air space, which will permit of a change of air four or three times in an hour without discomfort. These figures are based upon the assumption that six-tenths of a volume of carbonic acid per 1000 is the correct standard of purity of air of an occupied room, any modification of this standard would, of course, make a change in this allowance.

It has been demonstrated by Prof. Pettenkofer that a much smaller space than that designated as the standard can be efficiently ventilated. By using the best mechanical contrivances and warmed air, he succeeded in renewing the air in his chamber with an air space of only 424 cubic feet six times in an hour without creating any perceptible movement in the air. If the cost is a matter of no concern there can be no

doubt that, with proper appliances, a very much smaller space even than that just described can be comfortably ventilated; but with natural ventilation it need not be attempted. Of course in most dwellings the use of contrivances such as have been alluded to scarcely enters into the question. They are too costly, and require too much attention, consequently may be neglected. But the main objection to a small air space is the impracticability of renewing the air sufficiently often without causing draught. In ventilating small spaces the inlets are so near the person occupying the room as to make a draught unavoidable. In exemplification we only need to examine the prisons in which convicts are confined in cells during rest, the air space of which seldom exceeds 250 cubic feet, often less. To avoid the unpleasant effects of these draughts the prisoners frequently block up the inlets as best they can and thus obstruct ventilation with serious consequences. Even with the aid of a well devised plan of ventilation it is hard to supply the necessary amount of fresh air per head per hour without creating perceptible draughts occasionally if the space be less than 600 cubic feet. With an air space of 1000 cubic feet the problem of ventilation becomes much easier. The current of fresh air is more easily broken up and mixes more readily with the larger volume of air in the room, and the occupant being further from the opening does not perceive the movement of the air.

Dr. De Chaumont gives the following results of an experiment to determine the length of time it would take to bring the air to the limit of permissible impurity (six-tenths per 1000 of carbonic acid, initial and respiration) in unventilated air spaces of different sizes:

One man in		10,000	cubic ft.	3	hours	20	min.
"	"	5,000	"	1	"	40	"
"	"	1,000	"			20	"
"	"	600	"			12	"
"	"	200	"			4	"
"	"	50	"			1	"
"	"	30				36	sec.

The larger amounts mentioned are scarcely ever met with; it is more commonly the case that the air space is less than the standard selected (750 to 1000 cubic feet). Even with an air space of 10,000 cubic feet the limit of impurity would be reached in a little over three hours, and thereafter 3000 cubic feet of fresh air would be required each hour to keep the air in a condition of freshness, the hourly supply of air being the same for a space of 100 or any number of cubic feet.

The error of supposing that the cubic space may take the place of a change of air, so that by providing a large room less fresh air will be required, is a very common one and should be carefully guarded against. It is very unwise to attempt to make up for bad ventilation by providing increased cubic space, particularly if this increase be in the height of the room and not in floor space. The air above a certain height is of little advantage if the floor space be too limited, for an enclosure relatively unlimited in height but contracted about a man, would suffocate him.

It has been proven that a man standing on a square foot of ground with walls 3000 feet high all around him

who would be in 3000 cubic feet of space, but it is evident that he could not survive in it.

Rooms should not be over twelve feet in height.

Under no circumstances, then, can a large supply of fresh air be dispensed with and the habitation remain healthy, and no arrangement whatever can take place of that air.

A large space does not require so frequent and rapid a renewal of the air as a small space, but the greater expense of maintaining a comfortable temperature with the necessary ventilation may lead to a dangerous exclusion of the outer air. On the other hand a small space will necessitate a more frequent and rapid change of air, and if perfect renewal takes place more frequently than three or four times in the hour the movement of the air causes a draught and becomes uncomfortable.

Between these two extremes lies the practical mean which requires that the cubic space shall be neither too large nor too small, but sufficient only for maintaining perfect ventilation without perceptible movement of the air or draught.

Some think that so large an air space as 1000 feet is extravagant and unnecessary and not at all practicable. That it is in excess of what is generally obtained is no doubt true. In the case of the poorer classes it is seldom that an air space exceeding 250 cubic feet is encountered. When poverty pinches, overcrowding is an inevitable result. So also with the artisan class, the allowance per head is apt to be low. But the results of this condition are only too likely to declare themselves in an increased rate of mortality.

A proper standard must be selected and the people educated up to it, otherwise no improvement need be expected.

For the sick the allowance of air space must be increased as there are other impurities besides those due to respiration which require to be taken into consideration.

The room for the sick should be large and airy, especially when the disease is of an infectious character, as the emanation from the body rapidly pollute the air to the detriment of the patient and attendants, unless provision is made for the immediate dilution of the impurities by an ample distribution of air without draught, which is more likely to be secured in a large room.

Oxygenation of the Blood and Chemico-Electric Energy as a Natural and Logical Sequence.

T. J. HIGGINS, SAN FRANCISCO.

REGARDING the Oxygenation of the blood through the inhalation of air into the lungs we are justified in asserting that such action does take place and we can easily prove that such substances as carbon and oxygen in the gaseous state may and do pass through the air sacs of the lungs into the blood

of living animals, and that certain gases are likewise eliminated through the same channels. We submit the following experiment as part of the proof which may be adduced to back our assertions in the opening statement of this article.

1. The blood of the patient is examined and the amount of CO is estimated by the carmine method. Then the patient inhales a measured quantity of CO, immediately after which a fresh specimen of the blood is prepared and examined by this same method and the percentage to which the hæmoglobin has become saturated with carbonic oxide is estimated.

2. Knowing the amount of CO inhaled and the degree in which the blood has become saturated by this known amount the quantity of this CO capable of being taken up by the whole of that patient's blood can be calculated. Thus supposing that the volume of carbonic oxide delivered was 150 cc and that the blood was 25 per cent saturated it is obvious that the blood would have been 100 per cent saturated by 600 cc. Its total capacity for CO (or for oxygen) is 600 cc.

3. How then shall we connect this estimate of total oxygen capacity with the volume of the blood? It may be determined as follows: Take a sample of ox blood whose capacity for oxygen has been determined and compare its color with the color of a sample of the human blood and the oxygen capacity per 100 cc of a given sample can easily be determined. For example, an individual having absorbed 100 cc of CO, it is found that his blood is one-fifth saturated by this gas. The total capacity for CO (and so for oxygen) is therefore 500 cc. But further, the patient's blood is found to have the same color as an ox's blood, every 100 cc of which has been previously determined to be capable of taking up 20 cc of oxygen. The patient's total oxygen capacity (500 cc) divided by the oxygen capacity of every 100 cc of his blood (20) gives us 25. This figure is then the number of hundreds of cubic centimetres of blood in his body 2500. Haldane and Smith are the authors of the above experiments and in the practical examination of blood to determine the amount of blood in health in one hundred cases they have employed this method without producing any ill effects, and they estimate the average volume of blood 3240 cc or 3420 gm., the latter figure is obtained by means of the spec. gravity of normal blood (taken as 1.055).

We thus see by the above experiments that the oxygen of the air is passed through the air sacs of the lung does become an integral part of the blood. Now, in doing this, we know that the special affinity which the hæmoglobin has for the oxygen causes a change in the color of the blood that it becomes arterialized that in the change of color we have a chemisen manifest to our physical senses, a rearrangement of the atoms of the molecules entering into its composition and as a result a certain amount of polarized energy is evolved and in each and every lobule of the lungs there are nerve filaments of the pneumo-gastric nerve and of the sympathetic which unite to form

the anterior and posterior pulmonary plexus, and we fearlessly assert that these filaments receive vitalized energy and discharge the same when it has given to the various parts of the body the necessary impulses to conserve and sustain the vital activity of the various organs and the cells composing the same.

We consider that here in the lobules of the lungs is evolved that sentient energy that pervades every part of the body. To use a homely expression, here is the cylinder of the steam engine that imparts functional activity to every part of the body, and like the cylinder here also we have the exhaust. The only difference being that it is electric as a natural and logical result of the chemic reaction which takes place as a result of respiratory action. Stop either one and you have almost instant death. Sever the pneumogastric in the neck and you have great functional disturbance as a result, because it is one of the distributors of motor impulses to the following important parts of the body. To use the following euphonious appellations, it is the auriculo-laryngo-pharyingo-œsophago-tracheo-pulmono-cardio-gastro-hepatic nerve, and it is composed of both motor and sensory fibres, and supplies collectively motor and sensory impulses, and when this supply of nerve force, electric impulse, nerve fluid or whatever it may be is interrupted by sectioning this nerve, the most important functions of the body are immediately disturbed. We have also the thoracic from the third and fourth ganglia to form the posterior pulmonary plexus from which filaments are distributed to the capillaries and precapillary vessels undoubtedly for the purpose of receiving the bulk of the energy evolved by the chemism produced by the inhalation of air or other gaseous materials and the effect of such action is manifest immediately and the nerve action of the entire body is directly increased or decreased and organic action is promptly affected. Inhale some chloroform and note the result; then inhale some pure oxygen and note the result, in both instances you get a distinct result, and in each case it is entirely different because the chemical reaction was different, producing a different electrical impression. The principle underlying all this is the fact that there can be no polarization of energy or ether wave (or whatever we may choose to call it, for it is all one and the same) without we have a chemism preceding said polarization. It is absolutely impossible to actually destroy anything but form, and in the transformation of one form into another form the *electric* current is evolved, not created. The only thing created is the form assumed by the ions of which it is composed. The brain is the distributing agency, the supreme controller of the current, and when the supply is of such a nature that certain functions are stimulated far in excess of others (by artificial stimulation such as chloroform anæsthesia) we find certain of the organic body function arrested and narcosis results, and if carried too far death will result as a logical sequence; on the other hand, if we use pure oxygen gas we find other functions are stimulated far in excess of others and

we find a great acceleration of organic activity, and if continued too far death results from excessive activity and the consequent breaking down of the cells in great excess of repair and growth. We would say further that we do not consider the lungs the only source of this supply of chemico-electric energy but it is the immediate and chief source of such supply. All the organs of digestion and assimilation contribute their share, the skin supplies a large pecentage of frictional or static electricity and many disease manifestations met with may be corrected simply through increasing or decreasing skin activity; in other words, making a person breathe through his skin.

For example, take a case of sciatica and paint with essential oil of mustard along the track of the nerve. The result—marked irritation of the nerve terminations in the skin, increased blood supply to the part and surface; the oxygenation of the blood and evolvement of electric energy which is immediately picked up and assimilated by the nerves of the parts affected, a more free circulation of nerve fluid in the part resulting, and your patient relieved almost immediately as a perfectly logical result—proving the value of so-called counter irritation. There is a point in diagnosis that may be worth mentioning in regard to the making of CO examination that is suggested by J. Lorrain Smith, and it is this in cases of chlorosis there is no appreciable loss of the oxygen capacity (it being 95% of the normal) of the blood, but in pernicious anemia it only averages 48% and may go as low as 28% showing the great lack of hæmoglobin in the cases of anæmia.

Surgical Measures in Difficult Digestion.

Read at meeting of Nashville Academy of Medicine, Tuesday, February 9, 1904.

BY RICHARD DOUGLAS, M. D., OF NASHVILLE, TENN.

Reprinted from Southern Practitioner.

NORMAL stomach digestion depends upon the correlation of its three functions, secretion, absorption and motor efficiency. The perversion of one disorders the others. Digestion is, therefore, both a chemical as well as a mechanical process.

It has been an immemorial custom to think of dyspepsia as a disturbance of gastric secretion. For the slightest ailments, this is no doubt true; but intractable or recurring difficult digestion is more often a matter of physics than chemistry.

Indigestion is a convenient collective term expressive of numerous phenomena which may or may not have their origin in the stomach.

Diseases of the stomach can be recognized only by taking under consideration the history, subjective and objective symptoms. (An office pre-

scription given after the usual formal consultation is not worth, in any instance, the fee charged).

The modern methods employed in the diagnosis of gastric disorders are carried to an unnecessary extreme. Our sin is usually, however, one of omission and not of commission.

If we hope to understand its diseases, we must examine the stomach and its functions after thoroughly eliciting and judiciously considering the history and subjective symptoms.

Faults in the chemistry of stomach digestion can be differentiated and intelligently treated only by an analysis of the stomach contents, obtained after some form of test meal. This method tests not only the function of the gastric glands, but the efficiency of the motor power of the stomach.

We are not warranted in assuming any case of difficult digestion to be merely chemical in character until we establish the absence of mechanical features.

Digestive disorders will ever remain the virgin and fertile field for the internist. He should not entertain fear of the surgeon trespassing. Human nature in the future, as in the past, will see to it that the surgeon does not come in until the internist, like Barkis, "is willing."

Two dangers confront us: First, an old one, we persevere too long in the therapeutic means; second, a new one, we resort too early to operative measures. Our salvation lies in accurate diagnosis, absolute honesty, and conservatism.

True conservatism may mean many things; it by no means implies that the surgeon's hand should be withheld.

Disorders of gastric secretion may point to mere chemical disturbance, amenable to medication and diet; or it may be, and often is, the initial symptoms of serious organic lesions.

The time is not ripe for a definite classification of disorders of the stomach into surgical and medical cases. Absolute mechanical conditions do not always require, nor are they necessarily best managed by surgery.

Symptoms referable to the stomach are not always due to gastric disease. Remember that the celiac plexus is the great storm center that gathers breezes from all quarters of the abdomen.

Gastroptosis is a frequent cause of difficult digestion. I would emphasize occasional attacks of copious vomiting, vertigo, nervousness and depression, sometimes apprehensions or hallucinations, and quite significant is the symptom of sick headache, undoubtedly of toxic origin.

The objective signs are, first, pulsations of the abdominal aorta; second, splashing sounds; third, corde colique transversi; fourth, displacement of other viscera, viz., colon, kidney, and uterus; fifth, flat epigastrium; sixth, pendulous abdomen.

When distended, the stomach often occupies a somewhat vertical position, its right border being parallel with the axis of the body. The lesser curvature being at, or below, the level of the seventh costal cartilage, i. e., below a line drawn circularly around the body from the tenth dorsal spine. The greater curvature is below the umbilical

line, and in those cases in which the stomach occupies the vertical position, the lowest point may be a little to the right of the umbilicus. This last point is especially noticeable in a patient who has been seen by a number of members of this Academy, and who, at my request, recently visited Dr. Osler, that gentleman returning him to me with the following quaint statement: "Your patient has gastroptosis with dilatation. He is one of those omphalics that circulate around the umbilicus."

Gastroptosis is usually associated with enteroptosis. Malnutrition and general neurasthenia are inevitable results. It is questionable, because of the multiplicity of lesions, if surgery is of special value.

The results of gastroplication are temporary, and probably attributable more to the enforced rest in bed than to the special surgical procedure. Rest in the recumbent position, hips elevated; an occasional lavage; concentrated nitrogenous diet; bitter tonics with antiferments, attention to bowels and general functions, with massage, is the most rational management of these cases.

Dilatation of the stomach, so frequently mistaken for gastroptosis, may be either an acute or chronic condition.

Acute dilatation of the stomach we have all seen, but not often recognized.

In a recent case of puerperal sepsis, seen with Drs. Altman and Witherspoon, the patient suffered with extreme gastric disturbance and ceaseless regurgitant vomiting. These symptoms developing in the case of puerperal infection may have most naturally been interpreted as general peritonitis. The escape through the stomach tube of volumes of gas and pints of offensive, greenish black fluid, followed by lavage, relieved the distress consequent upon pressure, and, in my judgment, contributed as much to the woman's recovery as the cul de sac incision or the intravenous injection of silver nitrate.

Nine days after a nephrectomy the patient was in good condition, when quite suddenly and inexplicably acute dilatation of the stomach developed, resulting in her death in twelve hours.

With Dr. Barr I saw a case of acute dilatation of the stomach which came up as a complication of mastoid disease.

Acute dilatation of the stomach was first described by Hilton Fagg. Campbell Thomson has collected some fifty cases, and gives a very thorough exposition of its symptoms.

If amenable at all to surgical operation, it would be through gastro-enterostomy; but as yet no one has had the temerity to try it. If it recurs after thorough evacuation and lavage, it is generally fatal in a few days.

Atonic Dilatation of the Stomach: Myasthenia ventriculi occurs frequently as a complication of many digestive disorders, such as hyperchlorhydria, chronic gastric catarrh, atonic dyspepsia, etc. Diagnosis is based upon the discomfort after eating; a sense of fulness and eructations of gas.

Objectively. The splashing sounds; delayed digestion; often the insufficiency of hydrochloric acid; great fermentation. When the stomach is in-

flated, or Dehoe's method employed, its greater curvature will be found to descend below the umbilical line. Peristaltic waves not visible. Clinically speaking, both acute and atonic dilatation are of minor importance as compared to consecutive ectasia, the consequence of pyloric obstruction.

Mechanical obstruction of the pylorus or duodenum, giving rise to dilatation of the stomach, with ischyochymia, is so frequent that scarcely a week passes that we do not meet with it.

Congenital narrowing of the pylorus is now a recognized ailment of childhood, though it may not become marked for some years.

I have now under observation two little girls in both of whom I have been able to demonstrate pyloric obstruction with dilatation.

Simple hyperchlorhydria may, by its irritating effect, give rise to pylorospasm, with consequent dilatation. It is probable, however, in such cases there is an ulcer near the pylorus.

Organic stricture of the pylorus may be innocent or malignant. Cicatricial contraction following healed ulceration is the most common of all causes, and, fortunately, the one most easily remedied.

Carcinoma of the pylorus is a well recognized cause of dilatation. The pylorus may be compressed by tumors of other than gastric origin. Adhesions from paragastritis by traction and constriction occlude the pyloric opening, and lead to the delayed passage of food and dilatation.

In this connection I may mention two cases of gall stone in which the adhesions, the omentum and colon, so compressed the first portion of the duodenum as to interfere with the lumen of the gut, and gave rise to consecutive ectasia gastrica.

In dilatation of the stomach digestion is made difficult because of the loss of motor power, increase of secretion, and the arrest of absorption. So in this condition we have typified both mechanical and chemical indigestion.

Discomfort, a sense of fulness and weight, vomiting of partially digested contents at variable intervals, are the important subjective symptoms. The loss of weight, the anæmia, scanty urine, constipation, general physical debility, mental lethargy, are less significant symptoms. The diagnosis of the condition is easily achieved if we employ modern methods.

By palpation alone the outlines of the stomach may be detected. It is well to remember that the normal stomach is tucked away under the left arch of the diaphragm, and is not palpable when empty.

In suspected dilatation, if the patient will fast for twelve hours, and then be given a test breakfast of Ewald, remnants of the roll will be withdrawn; or if the test meal of Loubie be employed, partially digested food will remain in the stomach more than seven hours. If we distend the stomach with carbonic acid gas, it lies athwart the upper zone of the abdomen like a big air cushion. Its exact position depends upon what was the normal position of the stomach, which, we well know, is quite variable.

To declare that a stomach is dilated,

we must be able to outline by percussion and auscultory percussion, both curvatures of the stomach. The greater curvature must be below the umbilical line, and the lesser curvature above the left seventh costal cartilage. It may reach to the fourth, and the greater curvature to Poupart's ligament.

That a dilated stomach may contain as much as seventeen pounds of fluid, gives us some idea of its enormous capacity. Percussion of the inflated stomach is the most reliable means of detecting dilatation, but others should be employed.

If the patient is allowed to fast for some hours, and then stand before us stripped with the stomach empty, we may note the lower limit of stomach tympany. Now permit him to drink water, a glassful at a time, and after each glass percussion will note the rising dullness.

Leube and Boas attach much consequence to our ability to palpate, in thin subjects, the stomach tube through the abdominal wall. Einhorn's gastrodiaphane, with its transillumination, is a troublesome and unnecessary instrument. By inspection alone the diagnosis was made by Osler in ten out of thirteen cases.

Remember that in obstructive dilatation there is muscular hypertrophy, and upon inspection we not only note a symmetry of the abdomen, but visible waves of peristalsis rise in distinct patterns across the violently working stomach. The contents of a dilated stomach depends largely upon the character of the obstruction. As a rule, if the cause is malignant, there is an absence of hydrochloric acid, and an excess of lactic. If due to a cicatrized ulcer, free hydrochloric acid in abundance is usually found, unless the patient has been the subject of adenia, i. e, exhausted gland secretion.

In obstruction due to gall stone or paragastric adhesions, as also in pylorospasm, hydrochloric acid is in abundance.

When confronted with a case of dilatation of the stomach, the indicated procedure depends, in some measure, upon the cause. If the condition is one of malignancy, and all the disease can be removed, pylorectomy with gastrojejunostomy, is a better procedure than pylorectomy, followed by gastroduodenostomy. In advanced malignancy we are justified in doing a gastro-enterostomy for temporary relief.

Obstruction from perigastric adhesion is sometimes relieved by releasing the adhesions but in these cases, if dilatation is a marked feature, an anastomosis should be made. Narrowing of the pylorus from innocent causes is sometimes treated by pyloroplasty—a simple procedure with low mortality, but not as permanently beneficial as gastro-enterostomy.

Ulcer: 75% of all cases of difficult digestion requiring surgery for its relief, are due to ulcer and its complication. There are some erroneous ideas ingrafted into the minds of the profession which should be eradicated. It is now known that ulcer is not infrequently met with in children. It is also shown by more recent statistics that it is practically as common in males as in females.

We must further recognize that it may be present in individuals apparently in perfect health.

It is a well grounded belief that ulcers will heal under rest and diet. This is undeniably true in many instances, yet are we alive to the possibilities of a fatal hemorrhage or sudden perforation while waiting, and do we recognize that the very process by which they heal, viz: that of cicatrization, may in itself become a cause of obstruction and dilatation and that in 6% of such cicatrices, carcinoma develops?

These are great, and in some instances, remote dangers that call for the surgical treatment of gastric ulcer.

To this audience it is unnecessary to recount in detail, that distressing train of symptoms by which we recognize gastric ulceration. In passing, I would refer only briefly to the distress upon taking food; the time at which it occurs is in some measure diagnostic of the seat of ulceration.

We should bear in mind that vomiting is not always present in ulceration. It is a conspicuous symptom, however, when ulcer is situated near the pylorus; then the cicatrization or pylorospasm produces occlusion of this opening and we have vomiting of retention.

The pain in ulcer is variable; tenderness, however, is more diagnostic. It may be directly over the seat of ulceration, which is usually in the left epigastric triangle.

Quite significant is Boas' tender spot, just to the left of the tenth to the twelfth dorsal vertebra.

Hyperacidity is so constantly associated with gastric and duodenal ulceration both as a cause and an effect, that we now consider hyperchlorhydria in the group of diagnostic symptoms.

We are prone to look upon gastric ulceration as comparatively harmless. A few catastrophies such as I have seen, may change one's views. I have seen four deaths from hemorrhage due to gastric ulceration. Three of these patients had a history of difficult digestion and phenomena of peptic ulcer. In one, all symptoms were latent, and, without warning, a fearful hemorrhage came on that resulted in death in a few hours.

Such fatalities are infrequent. Medical means alone, will suffice in almost every instance in controlling the hemorrhage.

It is scarcely necessary, indeed not advisable, according to our latest teaching, to seek for the bleeding ulcer. However, this point admits of discussion.

Disastrous hemorrhage is only likely to occur in the acute ulcer. It is the chronic ulcer that may exist symptomlessly, or in other instances, be attended with all those phenomena that make life intolerable, in which there is the ever-present danger of perforation—a catastrophe almost inevitably fatal.

It cannot be denied that a slowly perforating ulcer may acquire adhesions that will segregatet he escaping stomach contents, or may, indeed, prevent their escape.

But why trust to the unusual? It is quite the rule that when an ulcer perforates the wall of the stomach for a fistulous communication to be established between the stomach and the

greater or lesser peritoneal cavity, and death is the almost inevitable sequence. Undoubtedly perforating gastric ulcer is a rare condition with us, but many cases have doubtless occurred and escaped detection. I feel quite sure that some of my cases diagnosed as appendicitis with general peritonitis, operated upon some years back, when I did less thorough surgery than I do to-day, were cases of peritonitis due to gastric perforation and not to appendicitis.

In forty-nine cases of gastric perforation reported by Moynihan, eighteen were diagnosed as appendicitis.

The escaping contents are directed by the promontory of the transverse colon to the right iliac fossa, and this region becomes the seat of symptoms.

A point that I would emphasize is that many patients are declared to be the subjects of malignant disease of the stomach, upon the evidence of a palpable tumor and distressing gastric symptoms.

There is something different between the feel of an inflammatory mass, with its smooth resiliency, and the gritty, hard nodular sensation of a nepolasm; and in all cases of doubt, our patients should have the benefit of an exploratory operation.

When an acute ulcer bleeds profusely, or a chronic ulcer slightly and intermittently, or when gastric symptoms, subjective or objective, denote the presence of ulceration, surely nature is speaking to us in plain and ominous language. If we realize the dangers, present and remote, if we have pity in our heart for suffering mortal, knowing that certain relief can be obtained through gastro-enterostomy, and that this operation is not attended by more than three or four per cent. of mortality, even less in some hands, are we not violating the rules of science and holding in contempt the blessing of skill and knowledge that the Almighty has given us, when we refuse or hesitate to deliver our patients from chronic invalidism or death by the simple procedure of gastro-enterostomy?

Experience has demonstrated that it is unnecessary to cauterize, constrict, or ligate the bleeding ulcer; that it is unnecessary to excise the cicatrizing chronic ulcer. Hemorrhage will be controlled and ulceration will heal if the stomach wall is placed at rest by the establishment of a passive opening.

Carcinoma of the Stomach: If the remarks of John B. Murphy before the Philadelphia Academy of Medicine published in the December number of the *Annals of Surgery* were in the hands of every general practitioner of medicine, there would be no occasion for further discussion of this subject.

Forty-five per cent. of all cases of carcinoma affect the stomach, and it is estimated that as high as three and one-half per cent. of all deaths are due to carcinoma. These figures at once impress us with the horrible frequency of this disease.

Within the past year I have seen four undoubted cases of cancer of the stomach.

Does surgery offer anything to these cases? "There are some thirteen cases," quoting Murphy, "of complete gastrectomies. Several have lived from six to eleven months. Delatour's

(Brooklyn) patient lived seventeen months. So much for the grand procedure."

"If," says Mikulicz, "we do not prolong life but a single day, the operation is still justified."

A less serious procedure is that of pylorectomy, that has a mortality in the hands of Kocher, of 8.78% only. The average surgeon may expect a mortality of about forty per cent.

There are some of us who believe in cancer of the stomach as in some other organs—an absolute and permanent cure is quite an exceptional result; yet, no one can deny that life is prolonged; suffering is mitigated; health and vigor restored sometimes for years, sometimes only for months, by some safe and often simple procedure.

Therefore, gentlemen, I implore you not to permit your patients with carcinoma of the stomach to die without appealing to surgery. Make your diagnosis by painstaking examination, while the case is only one of difficult digestion. Seek the disease before it has passed to the lymphatic glands, and when confined to a limited area. Complete ablation may be done with the hope and confidence of permanent relief.

If this procedure, in the face of developments, seems unwise, a gastro-enterotomy, preferably after the manner of Moynihan, will, as a relieving measure, justify the hazard.

I have only opened the subject of difficult digestion from causes that are in the main amenable to surgical relief. The scope of this topic begins with dental caries and ends with piles. There are many conditions, especially movable kidney, renal calculus, gall-stone, and appendicitis that give rise to difficult digestion early in their development.

Surgery is successful in direct ratio to its timeliness; and the lesson we all have to learn is a thorough examination of our patients regardless of the apparent insignificance of symptoms.

The Study of Therapeutics.

F. J. PETERSEN, M. D., LOS OLOVOS, CALIFORNIA.

THE next drug to be considered is Glonoine.

Physiological Basic Indications: Marked cerebral engorgement; face becomes very red, throbbing carotids and a general feeling of fulness in head followed by severe headache; cannot bear to have hat on; warmth or heat aggravates condition. Bending head backwards aggravates headache.

Secondary Basic Indications: In temporary cerebral anæmia, anæmic headache which is relieved by bending head backwards. Head may feel cold, warmth relieves to some extent. In sudden collapse, sunstroke, etc.

Primary Basic Indications: In the 6th dilution or higher. Flushed face with marked cerebral engorgement, throbbing carotids, which may be accom-

panied or followed with headache; cannot bear to have pressure or weight on head; wants head uncovered, least jar aggravates headache. Warmth or heat will increase headache.

As can be readily seen, the physiological action is our key to its primary and secondary use. Glonoine is a very useful drug in either form if indicated; however, it is a remedy most useful in temporary conditions. Its long continued use is not to be recommended. Its action in both the primary as well as secondary form should always be carefully followed.

The Trendelenberg Position.

D. MACLEAN, M. D.

THIS position has its advantages and disadvantages in operative procedures. It is advantageous in retaining the intentines within the abdominal cavity where a long incision is necessary in removing a large tumor.

It has its disadvantages in the effect on respiration and circulation. The abdominal breathing is almost entirely suspended, and in these cases may be very serious. The thoracic breathing is increased, but not sufficient to compensate for the lessened abdominal. The face is cyanosed showing deficient oxygenization of the blood. The patient is also more subject to bronchitis from accumulation of mucus in the throat and nasal cavities passing into the bronchi on assuming the horizontal position. In careful anesthetization the patient should be gradually, not quickly, placed in the Trendelenberg position so that circulation and respiration may not be too suddenly disturbed. Also care must be used in removing all mucus from mouth, nose and throat.

In children, steady complaints of pain about the head, the limbs or any part of the trunk, without visible signs of inflammation, should always lead to careful examination of the spinal column. A diagnosis of rheumatism is often groundlessly made in such cases. Headache may mean cervical trouble high up; pains in the shoulders or upper chest may be due to similar trouble lower down, while caries of the lowest cervical vertebræ may cause pain refered down the upper limbs. Dorsal caries may produce stomachache, or sensitiveness of the skin over the ilium.

The gait of a child while coming down stairs is an important index to the presence of early vertebral caries. If he wants to be carried down, or is unnaturally cautious about the descent, and refuses to jump down the bottom stair and carefully holds on to the balusters, our suspicions must be strongly aroused.—*International Jour. of Surgery.*

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California Medical Colleges.

Examinations for July and August.

COLLEGES.	EXAMINED.	PASSED AVE.	CONDITIONED AVE.	FAILED AVE.
Cooper	34	27—84+	4—80+	3—69+
P & S.	19	8—79—	2—77+	9—68+
U. C.	16	15—82+	0 ——	1—72
U. S. C.	25	14—82+	8—80+	3—73
C. M. C.	4	2—81+	1—76	1—70+
H. M. C.	1	0 ——	0 ——	0—67+
	99	66	15	17
All others	68	39—80+	8—77+	21—67+

Editorials.

The examinations as conducted, are neither fair nor legal. They are not fair inasmuch as the questions are frequently of such character as not to test the knowledge of the applicant in the practice of medicine and surgery as the law contemplated, but obscure and technical. They are illegal from the fact that it is known to the examiners to what college the applicant belongs, which leads to favoritism.

To expect all on the Board of Examiners to be fair is more than human. To expect more than a majority to be

honest is reasonable. We believe the majority of the Board to be fair, honest and reasonable. We question the policy and the right of one man to deny an applicant licence because he fails in a single subject. It is too much one man power. One man can be the autocrat of the Board, the rest his stool pigeons. When he decides, no matter how worthy and competent the applicant, the rest with one accord says, "so say one and all." Surely in the case of the Board of Examiners the tail can wiggle the dog.

On Thursday morning, Sept. 22, 1904, Dr. A. J. Atkins performed an experiment on the lungs of a living animal, at the slaughter pens of Messrs. Clayberg & George, South San Francisco, Cal, and describes the results as follows:

Tracheotomy was performed on a living sheep, two especially prepared small platinum electrodes were inserted through the opening, into each lung; these platinum electrodes were attached by about thirty feet of insulated copper wire, to a Western galvanometer. The instant the electrodes reached the air-chambers of the lungs the needle of the galvanometer moved from zero point alternately to the right and to the left, the full length of the scale, at each breath of the animal. This action proves conclusively that there is an electrical current in the living lungs, also that the current alternates from positive to negative, with perfect rhythm at each breath of the animal.

The introduction of oxygen gas into the lungs during inspiration accelerated the action of the needle, thereby showing that oxygen increases the electrical action taking place.

In this experiment he was assisted by Drs. H. W. Hunsaker and E. A. Lewis, also by Mr. E. H. Forst, an electrical expert, all of whom reside in this City. Numerous others witnessed the experiment, and all are willing to bear witness to the details herein described.

Editorial Notes.

Curtis Gates Lloyd, authority on fungi, besides being a noted botanist, and his nephew, Thomas Lloyd, only son of Prof. John Uri Lloyd, will leave tomorrow on a scientific trip, to be gone until May.

In 1899 and 1900 Mr. Lloyd made a ten weeks' stay in Samoa, living there as the guest of Saipaia, a leading chief, living with the people, studying their habits and customs under the most favorable circumstances.

He made valuable finds in fungi, and secured excellent photographs and added most materially to scientific research in this line.

The present trip will include a month's stay in the Hawaian Islands first, and then five months' stay in the South Sea Islands.

Thomas Lloyd, who accompanies him on the trip, has spent many months at various times in Mexico and California in scientific research, and he will collect spiders.

Dr. W. P. Byron is now located at

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Ridgefield, Washington, and is rapidly building up a large practice.

Dr. M. V. Higgins, of Stirling City, Cal., was in town during the Conclave.

Dr. Henrikson brought another patient to the city recently.

Dr. Darrach of Prince Edward Island was one of the visiting Knights Templar who favored us with a visit.

Dr. W. S. Jones, and Mr. Strang, a druggist, both of Medford, Oregon, were among the visiting Knights.

Dr. G. W. Stout of Ukiah, also visited town during the Conclave.

Professor W. B. Church who had been connected with the California Medical College for ten years has been appointed Professor of Surgery in the E. M. I. We congratulate the old institute in securing the services of an able teacher, worthy of the confidence of faculty and students.

Dr. W. F. Gates of Oroville made a flying trip to the city last week.

The County Medical Society.

The San Francisco County Medical Society met as usual on September 7th, President Atkins in the chair.

Dr. C. A. Cordiner was to have read a paper, but instead sent word that he was too ill to attend.

In the place of Dr. Cordiner's paper, the members present gave experiences from their practice. Dr. Forster began with the history of a case in which he was the victim. Some six years ago he slipped and fell. The left shoulder was dislocated and the glenoid ligament ruptured. Do not know whether there was a fracture of the glenoid cavity or of the coracoid process. Three skiagraphs were taken this morning, but failed to show the coracoid process. At the close of the meeting, the members spent some time in examining Dr. Forster's shoulder with the aid of the X-ray.

Dr. Deardorff gave an account of an acute peritonitis surrounding the bladder and left ovary. Young married woman on evening previous to the attack ran a quarter of a mile on hard sidewalk to catch a train. At 1 A. M. was awakened by severe pain in the ovary. Menses had been irregular for four months, but had no thought of pregnancy. On examination, which was very difficult on account of tenderness, found enlargement of the uterus. Considerable fluid, which the patient thought to be urine, proved to be amniotic fluid. Treatment: Suppository of opium, one grain; hyoscyamine, one-quarter grain, every three hours. The next morning patient was resting easy. Menstruation appeared at noon of second day. Light pains at fifteen minute intervals on afternoon of second day. At 5 P. M. on third day, a four months' fœtus and membranes passed. Twelve hours after birth there was no fever, and all was apparently well.

Dr. Atkins described a case of intense pain subsequent to the removal of hemorrhoids. Examination revealed and resulted in the removal of fecal impaction which had existed for eighteen months.

Dr. Forster related the case of a woman injured in a railroad accident

fifteen years ago. Since then complained of constipation, dysmenorrhœa and hysteria. Hysteric periods of eight days and then eight days' rest. Neuralgia frequent. Non compos mentis a portion of the time. Former physicians had treated uterus by various methods. On questioning, found bowels opened once in five to seven days. Ordered plug dilators on alternate nights. Warm water douches on the intervening nights. Galvanism 2ma twenty to thirty minutes, with positive pole on descending colon. In two months bowels acted naturally. Menses normal. Gained twenty-four pounds. No laxative has been used for the past six weeks.

Dr. Lewis gave an account of a miscarriage, with peritonitis, treated with opium suppositories and also with kali phos. and natrum phos.

Adjourned at 9.35 P. M.

W. C. BAILEY, M. D., Sec'y.

The regular meeting of the San Francisco County Society of Physicians and Surgeons was held at Dr. Gere's office, Wednesday, September 21st. In the absence of the president and vice-president, Dr. Gere was called to the chair.

Dr. J. G. Tompkins read a paper on alimentation, bringing out the following points: Alimentation is to be considered in the broadest form, and regimen would probably be a better title, as it includes all dietetic means whereby a physician may preserve health or combat disease. Physiologically considered, aliment is different from so-called food-stuffs as being directly soluble and diffusible or convertible by the digestive juices of the body into soluble and digestible products, capable of being absorbed by the blood. Man derives the material to maintain and restore his organism from the animal and vegetable kingdoms. The waste of the system occurs through azotyzed losses in fæces and urine, carbonaceous losses by respiration and perspiration. These losses are modified by changing conditions, and the food should correspond in a degree to the character of the waste. Aliment to be effective must contain all the elements found in the body. These elements are not found free, but in combination with other elements not required. About sixty-five per cent of the weight of the body is water. Therefore alimentation includes a knowledge of the effects of diet upon the amount of water produced in the body irrespective of the amount ingested. Vegetable diet increases the carbohydrates, but being non-nitrogenous, they lack the preserving and sustaining power of nitrogen, and are likely to cause the accumulation of glycogen in the liver, yet they are the source of a part of the fat of the body. Vegetable diet yields a greater amount of indigestible residue than animal diet. Animal food is more readily absorbed, and, as it contains more nitrogen, less is needed. A rational diet is needed. A rational diet is only to be found in the judicious mixture of animal and vegetable diet. I do not look upon medicine as a food, though food may become medicine. I do not believe medicine or drug alimentation re-

stores lost equilibrium by being assimilated as is food, but rather by shock. I believe in sending a drug principle with such force as will produce a local disturbance. The vital restoring energy which nature has wisely established will then come to the rescue and restore order.

The paper was discussed by Drs. Schirman, Maclean, Gere, and Bailey.

Adjourned at 9.45 P. M.

W. C. BAILEY, M. D., Sec'y.

Reviews and Extracts.

Mammary Cancer.

H. N. Chapman holds that all cases of mammary cancer should be first submitted to the X-ray; not for the treatment of the disease *per se*, but that the axillary glands may be put into as perfect a condition as possible, and when this has been done, the cancerous mass in the breast should be removed with the knife, but the axillary glands scrupulously preserved as a defensive barrier. After the wound has healed, the glands and breast should be again submitted to the X-rays. This conclusion has been arrived at after the X-ray treatment and observation of four cases operated on by three of our leading surgeons, the axillary glands being removed in each case, and in each case the final result being disastrous. It is well worth while for this method to be tried, because usually the delay will not mean any serious consequences to the patient, and under the present method of operating first and using the X-rays afterwards the results are extremely humiliating.—*St. Louis Courier of Medicine.*

Diagnosis of Locomotor Ataxia.

Dr. J. Brown states that locomotor ataxia is one of the most common of the chronic nerve diseases. It is often unrecognized for years, although the most easily recognized of all the cerebro-spinal nerve lesions. To avoid overlooking this disease, examine every patient with symptoms of whatever nature for the knee-jerk and the pupil reaction; if both exist, the patient has no tabes. Examine further for evidence of tabes in any patient showing the following symptoms: Difficulty in walking, especially in the dark. Gradual failure of vision, or a transient squint. Lancinating pains, or neuralgic pains in legs, sciatica, chronic rheumatism. Sudden attacks of gastric pains, or causeless vomiting, or "bilious attacks" frequently repeated. Difficult or urgent urination ("bladder disease"), incontinence of urine or feces, numbness of anal region. Diminution or failure of sexual power. A sluggish ulcer on foot or leg. Spontaneous fracture of a long bone or a fracture from some trivial cause. Numbness of one or both little fingers or of ulnar sides of forearm.—*Med. Fortnightly.*

The Treatment of Suspicious Tumors of the Breast.

There are few conditions carrying a greater degree of responsibility than the early management of suspicious tumors of the female breast. In many of the cases the question of what to do

taxes the judgment of the best physicians and surgeons. There is, in fact, a wide difference of opinion in this matter among some of the prominent surgeons—a difference which seems unwarranted. Of course, when a mammary tumor is undoubtedly malignant and is still confined to the breast, the right treatment is plain to all. The main contention arises in connection with suspected cysts and enlargements known to be cystic. Many cysts of the breast are benign; nevertheless, the majority of surgeons advise the extirpation of all mammary cysts on general principles, on the ground that the majority of them are malignant, or become so. Also, it is often impossible to differentiate by means of palpation between deep-seated cysts and solid tumors. A few—very few—prominent surgeons advocate the use of the exploring needle to settle the differential diagnosis in doubtful cases. At least one eminent surgeon advises aspiration of mammary cysts as a curative measure and cites a series of what he calls cured cases to justify his position. In a series three-fourths as large as this one, reported from another source, out of thirty cases of "chronic cystic mastitis" there were three cases of microscopic carcinoma and twenty-seven cases of adenomatous proliferation of the cyst lining suggestive of beginning carcinoma. Clinically and microscopically all these cases were indistinguishable from each other. It would seem that due consideration of this last series of cases leaves no chance for argument as to the proper course of treatment in such cases.

Now, as to the employment of the aspirating needle for diagnostic purposes. It is well known that if a few cancer elements are transplanted into territory contiguous to a cancer extension of the growth is prone to occur. This fact should be sufficient to deter us from puncturing a doubtful growth through a healthy tissue. It is even necessary to be very careful in manipulating such growths, lest cancer elements be forced into the surrounding tissues or into lymphatic channels.

Considering these facts, then, we can not see how the use of the aspirating needle can be advised, either as a diagnostic or a therapeutic agent. It certainly is not consistent with our present knowledge. Another thing. These tumors are, as a rule, first seen by the family physician, who is not usually an expert in surgery. It certainly is bad teaching to advise the general practitioner to employ the aspirating needle indiscriminately in breast tumors, which is practically what the advice of those surgeons who practice aspiration of these cysts would amount to. That which may be permissible practice in the hands of the very select few might prove disastrous with all others. The thing for the general practitioner to do in this class of cases is to submit them to the judgment of a surgeon as early as possible, and to avoid the undue manipulation of the tumors. Most surgeons will advise removal of the tumor or of the entire breast, with the axillary glands, depending upon the clinical history and the conditions found in individual cases.—*Charlotte Medical Journal.*

Some Points in the Treatment of Acute Lung Disease in Children.

The conditions specifically considered in this article are those acute diseases of the lungs, except tuberculosis, the first point of importance is that of ventilation. The room in which the child or patient is to be confined during the continuance of the disease should be light and as cheerful as it is possible to make it, whether in a private home or hospital. Fresh air should constantly pass into the room, a window or windows should be open at all times, so that a current of air passes through the room, if such is possible, so that it does not directly pass over the patient.

Sunlight, when obtainable, should be continuously admitted, in fact the inside of the room should be made as near being out of doors as it is possible.

In winter, if hot air is provided from a radiator or register, well and good, and the cold or cool air should come in near the register, that it may be tempered. If by a stove the cool air should come in near the stove. With a little ingenuity this can always be arranged. These arrangements are necessary that the cool air may be tempered before it reaches the patient. The temperature of the room should be kept at about 65 to 70 degrees and sufficient bed covers should be supplied to keep the lower limbs and body warm and comfortable. If a stairway is near the room leading to a lower story, this should be kept constantly open, that the heavy foul air may drop down and out of the apartment.

Quiet is a very essential matter in the sick room. "An immense amount of vitality is wasted in sick children because of irritability, restlessness and loss of sleep. One of the first duties is not to give this or that drug, or to use this or that local application, but to put it in the best condition to withstand the disease." Progressive medicine, March, 1904, p. 263. Lying in the supine position is the one which is most conservative of the vital powers and the most conducive to strength.

In children too young to be reasoned with and kept in bed or in their crib, take a small blanket, pin it around the chest or shoulders, fold it over and bring the lower folded end up over the feet and body and pin it well together; you thus put the bed on the child when you cannot, as it frequently occurs, keep the child in the bed. This is a matter of the utmost importance. The constant changing of the child as it demands from it warm covers in the crib to the mother's or nurse's lap, with feet and limbs exposed, at times, often when bathed in perspiration, to be quickly cooled by exposure to the air. This is a cause frequently of greatest impediment to improvement.

Warm baths administered occasionally under cover, but not too frequently to annoy, will be grateful and of much good. Plenty of cool drinking water —not ice water.

Diet should be carefully regulated and controlled. Easily digested and readily assimilated food are the ones to be used only. Meat juices are excellent. Oranges are always appetising and refreshing.

Only those drugs which are positively and clinically indicated should be used.—*Charlotte Medical Journal.*

Comment on Antikamnia & Heroin Tablets.

Under the head of "Therapeautics," the *Medical Examiner* contains the following by Walter M. Fleming, A. M., M. D. (Qualified Examiner in Nervous and Mental Diseases for Supreme Court, New York City), regarding this valuable combination: "Its effect on the respiratory organs is not at all depressing, but primarily it is stimulating, which is promptly followed by a quietude which is invigorating and bracing, instead of depressing and followed by lassitude. It is not inclined to affect the bowels by producing constipation, which is one of the prominent effects of an opiate, and it is without the unpleasant sequels which characterize the use of morphine. It neither stupefies nor depresses the patient, but yields all the mild anodyne results without any of the toxic or objectionable phases.

When there is a persistent cough, a constant "hacking," a "tickling" or irritable membrane, accompanied with dyspnœa and a tenacious mucous, the treatment indicated, has no superior. In my experience I found one "Antikamnia & Heroin Tablet" every two or three hours, for an adult, to be the most desirable average dose. For night coughs, superficial or deep-seated, one tablet on retiring, if allowed to dissolve in the mouth will relieve promptly, and insure a good night's rest. In short, it will be found futile to delve for a more prompt and efficient remedy than "antikamnia & heroin tablets" in all bronchial complications with laryngeal irritation, dyspnœa, asthma, winter-cough and general irritability of the thoracic viscera."

Growing Pains.

Many mothers still refuse to consult a physician when their children suffer repeated attacks of muscular pain and spasm, because the children thus affected are usually of ruddy cheeks, red lips, full pulse, bright eyes, intelligent and well nourished. Such pains and muscular spasms the mothers attribute to the healthy growth of the child and call them "growing pains." A careful observer of these cases will obtain evidence of the rheumatiod character of the condition, no matter how slight the attack, nor how great the tendency toward spontaneous recovery. Neglect will be followed in a short time with rheumatoid complications that will not spontaneously recover, and the physician will have to deal with a case that will require treatment and much of it. Mothers should be taught that there is no such thing as "growing pains," and the physician should combat this tendency to rheumatism in childhood by careful attention to prodromal pains and the judicious administration of salicylates; counteracting the untoward effects of such remedies by the admixture of twice the amount of sodium bicarbonate with each dose of the remedy. —John A. Hale, M. D., Alto Pass, Ill.

[Written for the MEDICAL BRIEF.]

An Active Depletant for Pelvic Congestion.

The presence of congestion or inflammation, whether acute or chronic, involving the female pelvic cavity, forms grounds for anxiety. Fortunately we have passed the age where operative conclusions are hastily made. A superficial study of the vascular supply of the female pelvic organs, with its vesico-vaginal and vesico-uterine plexus forming a complete net-work of anastomosis, is sufficient to show that local applications of depleting agents to the vaginal and rectal canals form both practical and theoretical ideals in treatment, which, by purgative action, reduces the stasis of engorged cellular tissues and lowers vascular tension, thus aiding nature inrestoring normal glandular action. Glyco-Thymoline in contact with mucous membranes everywhere produces the following physiological activities in direct proportion to the vascularity of the structure. It stimulates the secreting cavity of glandular structure of all mucous surfaces, so that larger quantities of watery fluids are exuded. On the law of exosmosis, which determines the passage of fluids through animal membranes from a rare to a more dense saline medium, this solution through its stimulating and hygroscopic property brings about a rapid depletion, drawing outwardly through the tissues the products of inflammation and materially reducing the danger of septic infection. The following clinical cases bear with interest on the subject: Chas. Le Cates, M. D., Philadelphia, Pa., reports: Mrs. A. consulted me in reference to her condition. Made a thorough examination and found uterus much enlarged, very turgid, degeneration of the endometrium, discharge rather profuse. Treatment—Hot vaginal douche, ten per cent Glyco-Thymoline. I then irrigated the uterus with pure Glyco-Thymoline and tamponed the vagina with lamb's wool saturated with Glyco-Thymoline. This treatment was given twice and three times a week, improvement was rapid, congestion was reduced, and patient discharged in six weeks. I see the patient frequently and there has been no recurrence of former trouble.

According to Fyfe, Normal Tincture Cimicifuga is a remedy of great value in the treatment of many abnormal conditions of the reproductive organs of females. The influence of the drug on these organs is toward normal functional activity. It is very useful in the afflictions incidental to pregnancy, and its continued use greatly modifies the many aches, pains, and other unpleasant sensations of the child-bearing woman during gestation.

When to Operate in Appendicitis—Now or later? That is the question. While undecided use Antiphlogistine. Spread warm and thick over the abdomen and cover with absorbent cotton and a suitable compress. When used early the inflammation is often resolved, the attack is cut short and operation becomes unnecessary. The dressing should be renewed when it can be easily peeled off, generally in 12 to 24 hours.

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Atlanta, Ga., Dec. 22, 1903.

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Dear Sirs:

A feeling of gratitude prompts me to acquaint you with the wonderful success with which the use of your preparation, Pepto-Mangan (Gude), was accompanied in several instances within our direct observation: A nine year old inmate of this Institution had for some years been an epileptic. After all the ordinary remedies had been exhausted, we put him, on the recommendation of Dr. S. G. C. Pinckney, on Pepto-Mangan. In the course of a few months, his attacks became less frequent, until they entirely disappeared, whereupon the medicine was discontinued. It was not long, however, before he was again seized with a spasm which recurred in constantly lessening intervals until he had relapsed into his old condition. Once more we put him on your preparation, continuing it this time for a whole year, long before the expiration of which the attacks had again gradually subsided. Since the second discontinuation more than a year has elapsed, and still the lad is hale a hearty, and entirely without a symptom of his malady.

Beyond a question of a doubt, a radical cure was also effected in a number of cases of eczema of the scalp, which had spread in an alarming manner in our "home," and which had baffled the skill of the most experienced specialists. For six long years had we been battling against this scourge in vain, and we probably would still be struggling against it had not the use of Pepto-Mangan (Gude) been resorted to. The circumstances accompanying the above instances conspire to furnish not merely a conviction, but a proof absolute of the efficacy of your preparation. The latter is rather expensive, and we are as poor as an orphanage generally is, yet we feel it a sacred duty to continue the use of Pepto-Mangan whenever indicated.

Believe me, gentlemen,
Most respectfully yours,
R. A. SONN, Supt.

The Treatment of Summer Diarrhea.

In the treatment of any form of diarrhea an accurate diagnosis must first be made. For convenience it is customary to classify diarrheas somewhat after this fashion: 1. Diarrhea of relaxation, or serous diarrhea, due to disordered innervation; 2, Carpulous or lienteric diarrhea, due to imperfect digestion; 3, Catarrhal diarrhea, acute or chronic, and 4, Ulcerative diarrhea, due to intestinal ulceration.

This classification is by no means perfect as is shown by the multiplicity of terms applied to the various pathologic states characterized by diarrhea. Thus we have the terms acute inflammatory diarrhea, acute summer diarrhea, choleraic diarrhea, dysenteric diarrhea, nervous diarrhea, tuberculous diarrhea, etc. In each case the diagnosis is determined by the actual condition prevailing, of which the intestinal laxity is usually but a prominent symptom.

The question of treatment is one of the utmost importance. Without entering into a discussion of what soon proves to be a very broad subject, it may be worth our while to consider briefly the status of the antiseptic method of treating intestinal disorders, especially those caused by pathologic organisms and of which diarrhea is the chief symptom. Apart from well-directed efforts to clear the intestine of bacteria, reduce the temperature, sustain the vitality of the patient, regulate the diet, secure proper hygienic conditions, rest, and good care, the selection of the proper antiseptic agent demands the exercise of the physician's best judgment.

Whether or not it be possible to attain internal asepsis is of course a debatable question, but it is a well established clinical fact that intestinal antiseptics do good and modify the course of enteric diseases of bacterial origin notably typhoid fever, dysentery and summer diarrhea. However, there is a difference in the degree of efficiency of the various antiseptics, the utility of many being limited by the risk of untoward action from excessive dosage. In those cases of ileo-colitis caused by the bacillus of Shiga many of the serious symptoms are due to the mixed infection, to combat which prompt and vigorous measures are required.

The experiments of Novy and Freer (*Contributions to Medical Research*, p. 114) with benzoyl-acetyl-peroxide (Acetozone) showed that this substance is extremely germicidal to the organisms found in the alimentary canal. Its administration to rabbits resulted in the "practical sterilization of the contents of the stomach." In several experiments with these animals "the intestinal tract apart from the cecal pouch, was found to be sterile." Neither bouillon tubes nor agar showed growths though the controls gave abundant cultures. Other experiments showed enzymes and toxins are also destroyed or rendered inert by Acetozone. Further study demonstrated not only the remarkable germicidal power of Acetozone, but also the fact that its aqueous solutions may be given internally, and even injected intravenously, without harm. From these data we infer that this substance ranks among the most powerful germicidal agents, while it exerts no harmful effect upon the human organism, and may, therefore, be employed as a therapeutic agent in the treatment of summer diarrhea and other infectious enteric diseases with the best effect. There seems to be abundant evidence to warrant the suggestion that Acetozone solution should prove most valuable in colonic flushing, as it is entirely free from the danger that attends the use of large quantities of even weak solution of mercuric chloride, and for that reason may be used fearlessly.

The Propriety of Bearing Testimony to True Merit.

In a practice of over fifteen years I do not think I have written over three or four testimonials for proprietary medicines, but I cannot see any impropriety in bearing testimony to a truly meritorious remedy, and especially

where that remedy has stood the test of time with thousands of physicians who with one accord verify its curative virtues in a certain line of disorders. This is true of the preparation, Sanmetto, which I consider a wonderful remedy and almost a specific in all inflammatory diseases of kidney and bladder. I prescribe it daily in my practice, and it has never yet disappointed me, but has frequently surprised me by its wonderful curative powers. When I am called to treat a case of cystitis my thoughts revert to Sanmetto; in fact, I have learned to associate Sanmetto with cystitis, but from the thousands of testimonials received, and the number of favorable reports in the medical journals, I hardly see why the manufacturers of Sanmetto desire more. It seems to me that a physician who does not know of the virtues of Sanmetto is very far behind the age.

Columbia, La. W. P. HOUGH, M. D.

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Celerina and Aletris Cordial Rio, equal parts, teaspoonful every four hours, is a most efficient remedy for amenorrhea.

Nature suffers many impositions, but her wrath knows no bounds when fully aroused. Even death itself sometimes pays the penalty.—*Dietetic and Hygienic Gazette.*

Book Notes.

ALL BOOKS reviewed in these columns may be examined by prospective purchasers, at the JOURNAL Editorial rooms from 10 to 12 daily, within thirty days of the appearance of the review. We invite students to examine these publications. Publishers will please notify us of the net price of all books.

Intra-Uterine Medication.—By Charles Woodward, M. D., Chicago, Ill.

The author gives his treatment of Uterine diseases and abortion in a very concise, simple and practical manner.

Great stress is laid on the use of the interrupted stream by the hard rubber uterine syringe, instead of the ordinary intra-uterine douche. Both constitutional and local remedies are prescribed in each case. The work is of special value to the student and young practitioner with limited experience in gynecological practice.

The Text Book of Human Physiology.—By A. P. Brubaker, M D, Professor of Physiology at Jefferson Medical College; Professor of Physiology, Pennsylvania College; Dental Surgery, Philadelphia. Published by P. Blakeston, Son & Co., Philadelphia. Cloth, $4.00.

This is a student's book, and prepared by an active teacher of twenty years' experience. Such facts are presented as will give the student a knowledge of the normal functions of the tissues and organs of the body, and prepare him for understanding abnormal manifestations as they appear in diseased conditions. It is concise and gives all the facts that a busy student should be burdened with.

Atlas of Anatomy for Students and General Practitioners.—By Professor Carl Todt, M. D., and k. k. Hofrath, Senior Professor of Anatomy in Vienna. Only authorized English translation from the third German edition by M. Eden Paul, M. D. With woodcuts (many in several colors) and explanatory text. The explanations are given in the English as well as in the international nomenclature, a circumstance which will recommend the work particularly to teachers and students. Complete in 6 vols. Demy 4to. Cloth bound, $18.

Rebman & Co, New York, publishers.

Part I.—A. The Regions of the Human Body (Figures 1 to 5). B. Osteology (Figures 6 to 377). With index. Price, bound in cloth, $2.50. Ready.

Part II.—C. Anthrology (Figures 378 to 498). With index. Price, bound in cloth, $1.75. Ready.

Part III.—D. Mythology, with a supplement on the Anatomy of Hernia (Figures 499 to 640). With index. Price, bound in cloth, $2.50. Ready.

Part IV.—E. Splanchnology (Figures 641 to 932). With index. Price, bound in cloth, $2.75. Ready.

Part V.—F. Angeiology (Figures 933 to 1123). With index. Price, bound in cloth, $3.75. Ready.

Part VI.—G. Neurology; H. The Organs of the Senses (Figures 1124 to 1505). With index. Price, $4.75. In press.

We have before had occasion to speak enthusiastically of this admirable atlas, and we can only repeat that Parts IV. and V., just received, are a revelation in anatomical illustration. In addition to the many fine charts, each one of these volumes is supplemented with a commentary by the translator. These notes take the form of an appendix in which all points that might be obscure, either from difference of nomenclature or any other cause, are all made plain. As a reference book this atlas is far more useful than a text-book, and for the student

nothing could supplement dissections as these plates do.

Part V., Angeiology, is especially fine. The veins and arteries of the head and neck have evidently received great attention, with the result that the complicated blood supply of that very important region is thoroughly depicted. The section on the lymphatic region is also very fine, one plate showing the lacteals and mesenteric glands demonstrated by mercury injection.

As before, we heartily recommend the atlas.

Clinical Urinology.—By Alfred C. Croftan, M. D.

Wm. Wood & Co., New York. publishers; price, $2.50.

This book is a treatise on the urinary aspect of disease, and deals with the borderland that lies between the laboratory and the clinic. The author has felt that the practitioner is not satisfied with mere chemical facts, but requires the biological and clinical interpretation of these facts, both as related to health and to disease.

The plan of the book is the grouping of the ingredients of the urine according to their clinical relationship and the discussion of the factors that determine their excretion in health and disease and the effects exercised on their excretion by qualitative and quantitave changes in food and drink, by fever, by specific bacteria and poisons, and by the impairment of the function of the various organs.

Special attention is given the organic constituents of the urine, the author believing that their importance has been greatly underestimated in the past.

The physical properties of the urine are described in a special chapter, with the latest and best laboratory methods of examination, etc.

Practitioners will find the arrangement practical and convenient for ready reference. Many illustrations add to the value of the book.

A Handbook of Pathological Anatomy and Histology.—By Francis Delafield, M. D., LL. D., and T. Mitchell Prudden, M. D., LLd.

Wm. Wood & Co., New York, publishers; price, $5.00.

This, the seventh edition of the book, attests its well-deserved popularity. Students and practitioners will find all the good points of the previous editions included in this one, together with much that is new and interesting in pathological research. The book is divided as before into three parts. Part I. is devoted to the making of post-mortem examinations, the lesions in certain forms of sudden death, and the methods of preserving and examining pathological tissues. Part II. treats of general pathology, and Part III. of special.

The section on immunity has been entirely re-written and Ehrlich's "side-chain" hypothesis has been set forth at some length.

Many new illustrations have been added, these illustrating changes in the morphology of the blood and lesions of ganglion cells are especially good. Altogether, it is to be heartily recommended.

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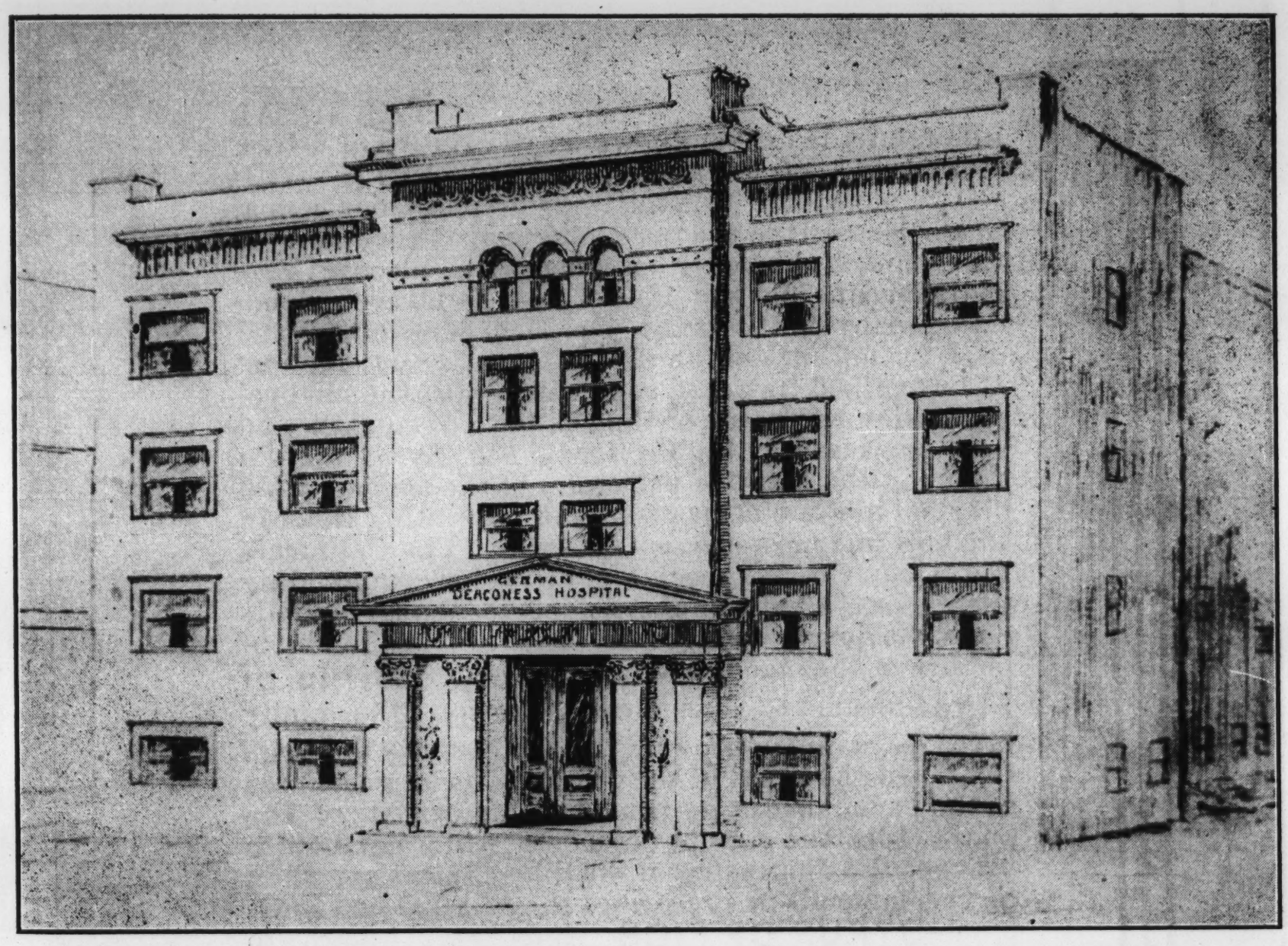

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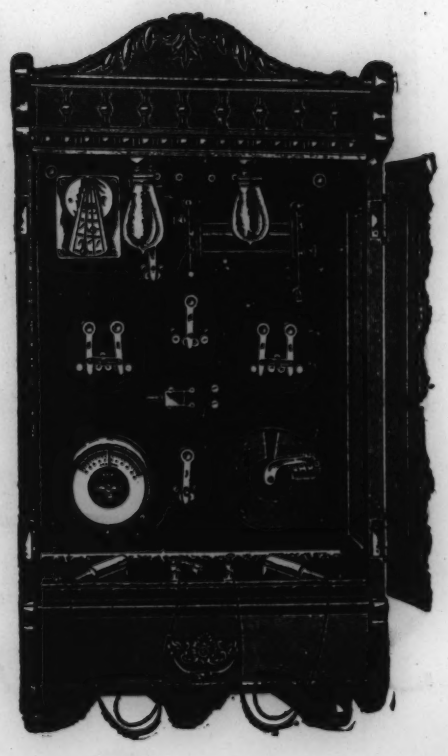

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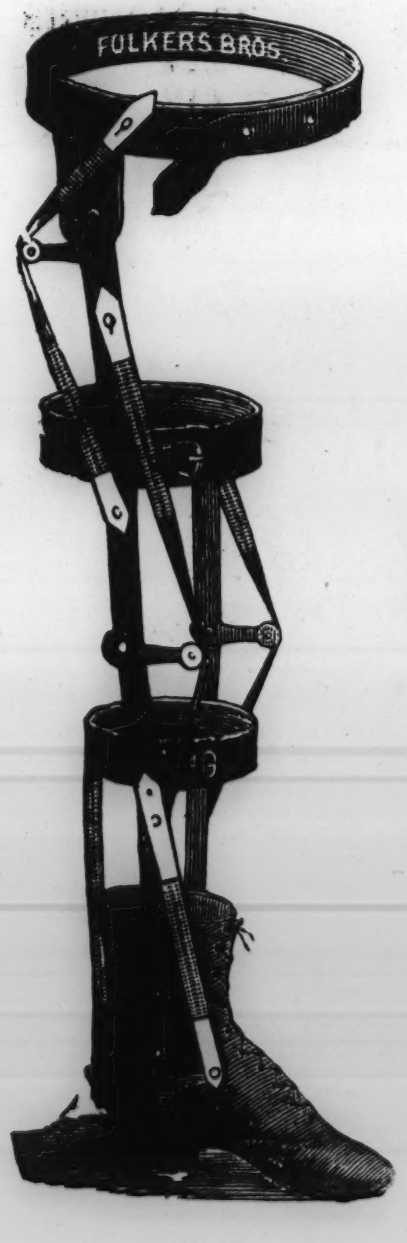

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Collinsonia Canadensis.

For some affections of the throat, Collinsonia is certainly a specific. It is such in so-called "minister's sore throat," or the laryngitis due to an over use of the speech organs. It is also efficient in chronic laryngitis, with change of voice, and in chronic bronchitis, when there is *irritation*, *congestion*, and *sense of constriction*. When these symptoms are present, Collinsonia has no superior as a remedy in certain forms of relaxed uvula, in pharyngitis, in hoarseness, in croup, and in whooping cough, as well as in ordinary cough of nervous origin. For these various uses it is administered in fair sized doses, as

℞. Specific Collinsonia, - - - - - - - f ʒ j.
Simple syrup, - - - - - q. s. ad f ʒ iv.
M. Sig. Teaspoonful four or five times a day.

For its general tonic effect upon the digestive tract, Collinsonia is a remedy of no mean value in functional gastric troubles, atonic dyspepsia, constipation, anemia, chlorosis etc. However, next to its specific action in throat affections, we desire to suggest the use of Collinsonia in rectal diseases, and in troubles about the anal outlet. As an internal medicament in the treatment of hemorrhoids, Collinsonia has no equal, if the cases be well chosen. There is *irritation*, *constriction*, *congestion*, a feeling as though a foreign body of no small size were lodged within the bowel. There is heat, burning, and perhaps hemorrhage. It is also very efficient as an internal remedy in the relief of the disturbances due to rectal pockets, papillæ, ulcers, spasmodic stricture, etc. It is not surpassed by any remedy in these troubles, unless it be by operative measures. The latter are more speedy, but hardly more certain. The same is true of Collinsonia in certain cases of spasmodic contraction of the sphincter ani, and in general prostatitis.

As adjunct remedies to be used in combination or in alternation with Collinsonia, we should consider specific ipecac, powdered rhubarb, and either the second or third decimal trituration of sulphur, or the second trituration of podophyllin. Collinsonia should not be forgotton in reflex troubles due to rectal irritation. In this line we mention reflex cough, asthma, chorea, headache of a dull, frontal variety, and reflex cardiac affections. It is frequently a remedy in dysentery, and in cholera infantum, when there is much tenesmus, with *irritation, constriction and congestion*.

Collinsonia is highly recommended in certain functional urinary troubles, when the symptoms calling for it are prominent. It allays the irritation and gives speedy relief. Many times it is the remedy in incontinence of urine, in urethral or vesical hyperesthesia, and for minor gonorrheal disturbances. Because of this action it has been suggested as a remedy in gravel, calculus, in dropsy, and in varicocele. It is also a remedy for hemorrhoids, swollen genitals, pruritus vulva and ani of the pregnant female. By some it is recommended in certain cases of dysmenorrhea, amenorrhea, leucorrhea, prolapsus, etc.

The symptoms—*irritation, congestion, and constriction*—presenting in any case of whatever name or nature, call for Collinsonia. For use in rectal, anal, and genito-urinary diseases, the dose does not need to be as large as recommended above. Ten drops of the Specific Medicine to four ounces of water, and a teaspoonful of the mixture every hour or two, is sufficient for most purposes in these lines. Larger doses, however, are not followed by deleterious effects. Remember, that when *irritation, congestion, and constriction* are present, Collinsonia is the remedy, call the disease what you may.—*Editorial from the Eclectic Medical Journal.*

The above editorial concerns one of the most important Eclectic remedies. It is the subject of our sixteen-page descriptive Drug Study No. VII, which will be mailed free on application.—*Lloyd Brothers, Cincinnati, Ohio.*

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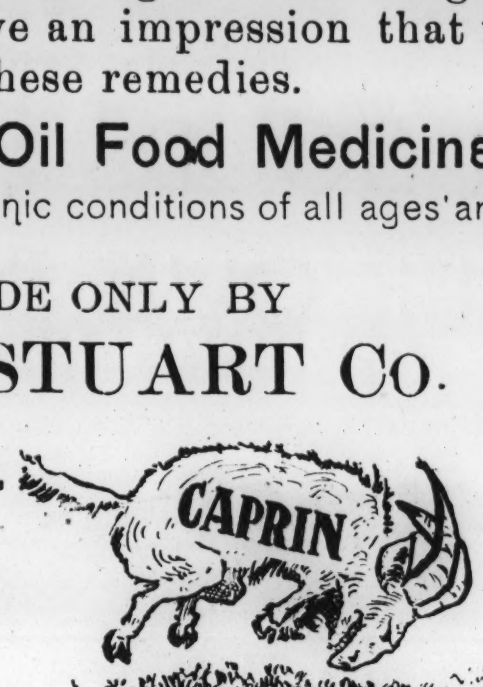

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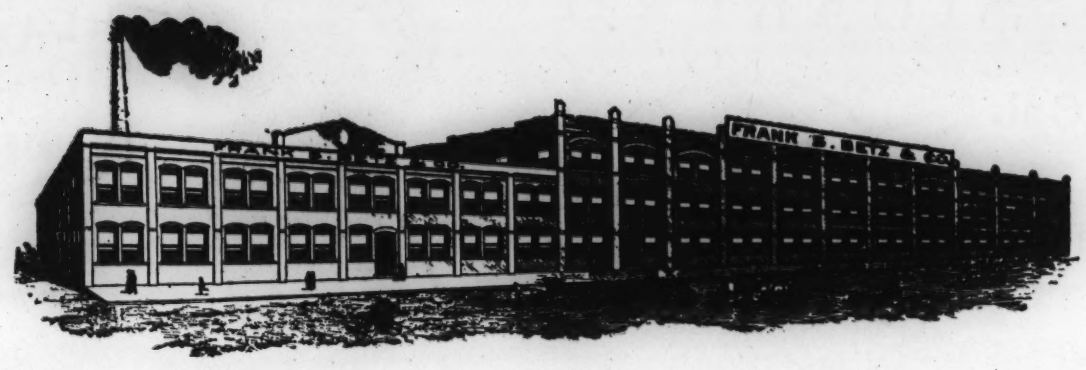

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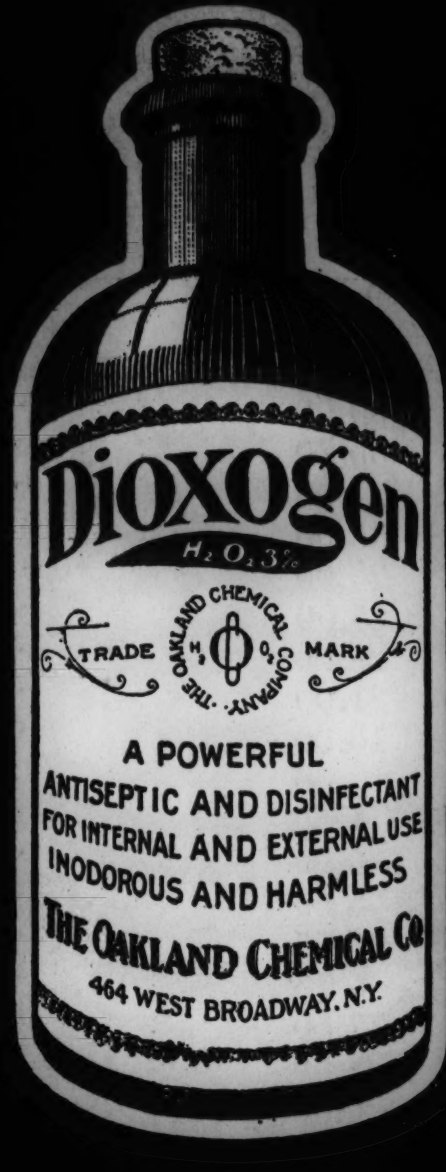

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